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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/598,270

06/21/2000

TOSHIHIRO SHIMIZU

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25944

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10/24/2006

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EXAMINER

LUU, MATTHEW

ART UNIT

PAPER NUMBER

3663

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/598,270

Applicant(s)

SHIMIZU ET AL.

Examiner

LUU MATTHEW

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5,7,12,26,87-89,91,93,98 and 102 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,12,26,87-89,91,93,98 and 102 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/18/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election Without Traverse*

Applicant's election without traverse of Group I, Species A (the embodiment of Figs. 1-7), and species (a), (1) and (i) (claims 1-3, 5, 7, 12, 26, 87-89, 91, 93, 98 and 102) in the reply filed on August 21, 2006 is acknowledged.

Claims 4, 6, 8-11, 13-23, 90, 92, 94-97, and 99-101 stands withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "parking drive judging means", "the parking end judging means", "storing means for storing a select condition for displaying the predictive traveling path and/or guide lines" and "select means" as recited in claim 7 must be shown or the feature(s) canceled from the claim(s) (i.e., the elected Species A, the embodiment of Figs. 1-7 does not show "the parking end judging means", "storing means for storing a select condition for displaying the predictive traveling path and/or guide lines" and "select means" as recited in claim 7 above). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

Art Unit: 3663

replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3, 5, 7, 12, 26, 87-89, 91, 93, 98 and 102 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to

Art Unit: 3663

enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding independent claims 1 and 87, the last four lines, "drive assist means for overlaying on the display means drive assist information containing the vehicle predictive traveling path predicted by the traveling path predicting means and guide lines prolonged from the lines defining the width of the vehicle body on the image of the area existing in the vehicle advancing direction", it is unclear how exactly the vehicle traveling path can be predicted. It is unclear how exactly the guide lines prolonged from the lines can define the width of the vehicle body.

Regarding claims 7 and 93, it is unclear where exactly in the specification and the drawings of Fig. 1-7 (elected by the Applicant) discloses the claimed "the parking end judging means", "storing means for storing a select condition for displaying the predictive traveling path and/or guide lines" and "select means."

Dependent claims are also considered rejected for incorporating the defects from their respective parent claims 1 and 87 by dependency.

***Claim Rejections - 35 USC § 112***

Claims 26 and 102 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 26 and 102 recites the limitation "the vehicle drive assist device" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 12, 87-89, 91 and 98, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (EP 0835796) in view of Schofield (WO 96/38319) and Kakinami et al (5,892,855).

Regarding claims 1 and 87, as best understood, Shimizu discloses (Fig. 1) a vehicle drive assist system comprising:

a camera (cameras S6) for picking up an image of an area existing in an advancing direction of a vehicle (Column 10, lines 17-37);

display means (Fig. 1, display 11) for displaying the image picked up by the camera (Figs. 6A-6C);

steering angle detecting means (S1) for detecting a steering angle for steering the vehicle (Column 5, lines 36-40);

traveling path predicting means (control section 22 and steering unit 21) for predicting a traveling path of the vehicle (forward movement or backward movement) on the basis of the steering angle detected by the steering angle detecting means (Column 5, line 36 to column 6, line 6; and column 7, lines 29-53); and

drive assist means (Fig. 1, steering unit 21) for overlaying or superimposing on the display means (11) drive assist information containing the vehicle predictive traveling path and guide lines (Figs. 6A-6C) (Column 10, lines 15-37; and column 13, lines 17-26).

Shimizu fails to teach that wherein the guide lines prolonged from the lines defining the width of the vehicle body.

However, both of Schofield (Figs. 3, 6, 8, 12 and 23 (road line markings)) and Kakinami (Fig. 2) disclose the guide lines (white lines) prolonged from the lines defining the width of the vehicle body (Column 2, lines 22-47).

Therefore, it would have been obvious to a person of ordinary skill in the art to use the guide lines of Schofield and Kakinami into the vehicle drive assist system of

Art Unit: 3663

Shimizu to provide an effective visual guidance for assisting a driver to park his/her car more easily.

Regarding claims 2 and 98, note the rejection as set forth above with respect to claims 1 and 87.

Regarding claims 3, 5, 89 and 91, Schofield further teaches (Fig. 14) wherein the brightness of the display can be adjusted according to the ambient light (Page 14, line 28 to page 15, line 3). Furthermore, it is well known in the art that a photo-sensor or charge coupled device (CCD) can be used to detect the brightness of the environment to adjust the brightness of the display device.

Regarding claims 12 and 98, it would have been obvious to the person of ordinary skill in the art to recognize that the guide lines (white lines or marking lines) can be displayed on the display device when the vehicle is backing up for parking or when the vehicle is braking (Shimizu, column 13, lines 18-27).

***Claim Rejections - 35 USC § 103***

Claims 26 and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (EP 0835796) in view of Schofield (WO 96/38319) and Kakinami as applied to claims 1 and 87 above, and further in view of Ong (6,285,317).



Regarding claims 26 and 102, Shimizu fails to disclose select means for causing the display means to selectively display the image from the camera or from a navigation device.

However, Ong discloses (Fig. 4) a camera (38), a navigation device (32) and a display (29). Ong further discloses (Figs. 7 and 8) the display can be switched between the video camera view of the navigation device view (Column 7, lines 1-4).

Therefore, it would have been obvious to the person of ordinary skill in the art to use the display means of Ong into the vehicle drive assist system of Shimizu to allow the driver to switch between the real environment scene or the navigational scene.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Kawai et al (6,577,334) disclose a vehicle control system includes a road data memory, current position sensor that detects a current position of a vehicle and a camera that takes a picture of the road ahead of the current position.

-Franke et al (5,485,378) discloses a device for steering a vehicle with controlled course holding.

Art Unit: 3663

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUU MATTHEW whose telephone number is (571) 272-7663. The examiner can normally be reached on Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JACK KEITH can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M. Luu

A handwritten signature in black ink, appearing to read 'M. Luu' with a stylized flourish at the end.

**MATTHEW LUU**  
**PRIMARY EXAMINER**